

ABSTRACT OF THE DISCLOSURE

A semiconductor device has a surge protection circuit electrically connected to a signal input terminal and including a diode and a transistor. The diode has its cathode region constituted of an n⁺ diffusion layer, an n⁻ epitaxial layer, an n-type diffusion layer and an n⁺ diffusion layer. The n⁺ diffusion layer is electrically connected to a conductive layer and formed at a main surface of a semiconductor substrate. The n⁺ diffusion layer constitutes, together with a p-type diffusion layer, a pn junction where Zener breakdown occurs, and the pn junction with the Zener breakdown occurring therein is distant from a field oxide film. Then, the semiconductor device with the surge protection circuit without suffering from current leakage and thus normally operating can be achieved.

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